

REMARKS

This amendment is being filed along with a Request for Continued Examination (RCE) application in response to the final Office Action dated March 10, 2006 and the Advisory Action dated May 30, 2006. Claims 1 and 3-4 are amended as shown. No new matter has been added. With this amendment, claims 1-5 are pending in the Office Action.

I. Preliminary Comments

As an overview of the recent prosecution up to this point, claims 1-3 were rejected in the final Office Action under 35 U.S.C. 103(a) as being unpatentable over Horimai (U.S. Patent Publication No. 2003/0063342) in view of Amble (U.S. Patent Publication No. 2004/0001400). Claims 4-5 were rejected under 35 U.S.C. 103(a) as being unpatentable over Horimai in view of Amble and in further view of Kono (JP Patent No. 2001-291242). In response to the final Office Action, the applicant filed a response under 37 C.F.R. § 1.116 on May 9, 2006, which argued *inter alia* that Amble does not provide a servo beam used in connection with a holographic recording to record holographic data.

It was believed by the applicant that the claims in their prior form sufficiently recited this (or similar) feature. However, in the Advisory Action, the Examiner stated that the applicant's arguments have been considered but nevertheless indicated that "nowhere in the claims is it explicitly stated that the servo beam is used during the holographic recording process."

Accordingly, this present amendment is being filed with the RCE to more explicitly recite features pertaining to the light beam for servo control in the claims. For the sake of completeness, at least some of the arguments presented in the applicant's response of May 9, 2006 are repeated hereinbelow, so that adequate context can be provided with respect to the points of distinctions being discussed. Based on the claim amendments above and on the arguments below, the applicant respectfully requests the Examiner to reconsider the rejections and to allow the pending claims.

II. Discussion of the Claims and the Cited References

With respect to the specific rejections of claims 1-3, the Examiner acknowledged or otherwise stated on page 2 of the final Office Action that “Horimai does not teach that a first light source is used to emit the recording beams and a second light source is used to emit the servo beam.” To supply these missing teaching(s) of Horimai, the Examiner has cited Amble.

However, it is respectfully submitted that Amble does not cure the deficiencies of Horimai. More particularly, Amble does not disclose, teach, or suggest that his servo beam 104 is used in connection with a holographic recording and reproducing process to record and reproduce holographic data. Instead, Amble’s servo beam 104 is used during writing and readout of his optical medium 86. *See, e.g.*, the last sentence in paragraph [0066] of Amble.

To further elaborate on Amble, Amble discloses an optical data storage system that employs a signal beam 100A having a wavelength of 532nm, a reference beam 100B having a wavelength of 532nm, a read/write beam 102 having a wavelength of 658nm, and the servo beam 104 having a wavelength of 780nm. *See, e.g.*, Figures 3C-3E of Amble.

In Amble, a format hologram is first recorded by interference of the signal beam 100A and the reference beam 100B within an R/W layer 90 of the optical medium 86. *See, e.g.*, Figure 3C and paragraphs [0064] – [0065] of Amble. The present applicant respectfully notes here for the Examiner that the servo beam 104 is not involved in the recording of Amble’s format hologram—only the signal beam 100A and the reference beam 100B are used by Amble to record his format hologram.

Following formation of the format hologram, data is subsequently recorded in the R/W layer 90 by Amble’s write beam 102. The servo beam 104 of Amble will track servo layer 94 during writing and readout of the optical medium 86. *See, e.g.*, paragraph [0066] of Amble.

Therefore, it is clear that Amble’s servo beam 104 is not involved in recording and reproducing his format hologram, since his format hologram is already formed during his initial recording process and before the writing/readout of the optical medium 86 by the servo beam 104.

Accordingly, Amble cannot and does not provide at least some of the limitations in independent claim 1, which recite *inter alia*: “A holographic recording and reproducing

method for recording holographic data in and reproducing holographic data from a holographic recording medium . . . the holographic recording and reproducing method comprising projecting a light beam for servo control emitted from a second light source and having a wavelength $\lambda 1$. . . ”

Accordingly, it is respectfully submitted that claim 1 is allowable over Horimai and Amble, whether singly or in combination, based on these recitations involving the projecting of the light beam for servo control as part of the holographic recording and reproducing method.

However, to facilitate prosecution and based on the comments from the Examiner in the Advisory Action, claim 1 is amended herein to recite --wherein said light beam for servo control is projected during a holographic recording and reproducing process--. The applicant thanks the Examiner for providing this insight/suggestion in the Advisory Action, as to the specific claim limitations that would distinguish the claims over the cited references. It is now believed that claim 1 as amended is further allowable over the cited references, whether singly or in combination.

Independent claim 3 is also allowable over Horimai and Amble, for reasons similar to those explained above. For example, claim 3 recites *inter alia* “A holographic recording method for recording holographic data in a holographic recording medium . . . the holographic recording method comprising projecting a light beam for servo control emitted from a second light source and having a wavelength $\lambda 1$ onto the holographic recording medium so as to substantially focus onto the surface on which the optical modulation pattern is formed, thereby generating clock signals in synchronism with the optical modulation pattern, sequentially recording phase information along the track, and shifting a record position along the track every integer multiple of a period of the optical modulation pattern.” It is believed that these recitations sufficiently specify that the light beam for servo control is projected during the holographic recording.

However, once again to facilitate prosecution, claim 3 is amended to recite --wherein said light beam for servo control is projected during a holographic recording and reproducing process--, thereby further distinguishing over the servo beam 104 of Amble that is instead used for writing and readout. Accordingly, claim 3 is allowable.

Independent claim 4 recites *inter alia* “A holographic reproducing method for reproducing holographic data from a holographic recording medium . . . the holographic

reproducing method comprising projecting a light beam for servo control emitted from a second light source and having a wavelength λ_1 onto the holographic recording medium so as to substantially focus onto the surface on which the optical modulation pattern is formed, thereby generating clock signals in synchronism with the optical modulation pattern, projecting a reference beam onto the holographic recording medium, reproducing an image recorded in the holographic recording medium ...” Independent claim 4 is also amended herein to facilitate prosecution by now reciting --wherein said light beam for servo control is projected during a holographic recording and reproducing process--, thereby making claim 4 further distinctive and allowable over the cited references.

III. Information Disclosure Statement (IDS)

A supplemental IDS, form PTO-1449 having references listed thereon, and a copy of a non-U.S. patent reference are being submitted with this amendment. The Examiner is kindly requested to enter and consider these references, and to include an initialed copy of the form PTO-1449 along with the next communication, so as to confirm that the references listed therein have been considered. Because this supplemental IDS is being filed with the RCE, a fee is not required for its submission.

IV. Conclusion

Overall, none of the references singly or in any motivated combination disclose, teach, or suggest what is recited in the independent claims. Thus, given the above amendments and accompanying remarks, the independent claims are now in condition for allowance. The dependent claims that depend directly or indirectly on these independent claims are likewise allowable based on at least the same reasons and based on the recitations contained in each dependent claim.

If the undersigned attorney has overlooked a teaching in any of the cited references that is relevant to the allowability of the claims, the Examiner is requested to specifically point out where such teaching may be found. Further, if there are any informalities or questions that can be addressed via telephone, the Examiner is encouraged to contact the undersigned attorney at (206) 622-4900.

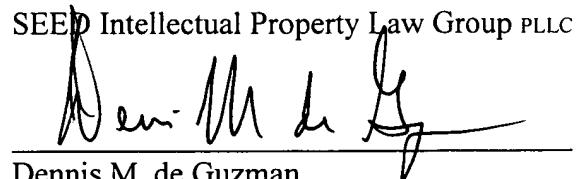
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Reply to Office Action dated March 10, 2006
and Advisory Action date May 30, 2006

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

All of the claims remaining in the application are now clearly allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,

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